Maryland Heat Emergency Plan

Version 1.0

Maryland Department of Health and Mental Hygiene

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Summary

Purpose

The Maryland State Heat Emergency Plan, developed by the Maryland Department of Health and Mental Hygiene (DHMH), guides DHMH's actions during an extreme heat event, as defined below. This plan also provides guidance for Local Health Departments (LHDs) to support them as they fulfill their roles, however it does not mandate that LHDs perform the suggested actions described.

Definitions

Complex Heat Emergency – A Complex Emergency is a condition of an Extreme Heat Event with complications requiring additional response. Examples of such complications are water or power shortages or an extended heat wave.

Cooling Centers – The actual definition of a 'cooling center' may vary from county to county. For the purposes of this plan, a cooling center refers a public building with air conditioning and water. Cooling Center Plans may be identifying general locations like movie theaters or malls that the LHD recommends going to escape the heat, or designating locations such as community centers with extended hours and bottled water.

Extreme Heat Event – An Extreme Heat Event is a weather condition with excessive heat and/or humidity that has the potential to cause heat-related illnesses. An Extreme Heat Event is defined as a day or series of days when:

- The heat index is forecasted to be approximately 105 degrees or higher, or;
- The National Weather Service has issued a Heat Alert, or;
- Weather or environmental conditions are such that a high incidence of heat-related illnesses can reasonably be expected.

Heat Index – The Heat Index is a measure of what the temperature actually feels like. The heat index is a combination of both the actual temperature and humidity, as is the best indicator for a pending Extreme Heat Event. The Heat Index is the key indicator of an Extreme Heat Event by the National Weather Service.[1]

Heat-related Illness – A Heat-related Illness is a condition caused by extreme heat, usually dehydration, heat exhaustion, heat stroke or a medical condition exacerbated by heat events.

High-Risk Groups – High-Risk Groups are populations that are disproportionately affected by Extreme Heat Events. These groups include children and youth athletes, individuals who may be socially isolated (such as the elderly or those with psychiatric illness) and individuals with

[1] http://www.weather.gov/om/heat/index.shtml

medical risk factors, such as alcoholism, cardiovascular or pulmonary disease, hypertension, diabetes or tobacco use.

Phase 1: Pre-Summer

Pre-summer activity occurs in the spring before temperatures begin to rise. Based on temperature data collected at the Baltimore-Washington International Thurgood Marshall Airport (BWI) and ESSENCE data on Heat-related Illnesses, temperatures in Maryland can begin to spike around early May, although Extreme Heat Events don't usually begin until early June. However, it is important to begin preparing for these events early to ensure all partners are ready to activate during the first Extreme Heat Event.

Triggers

- Pre-summer activities begin in April.

Surveillance

- The National Weather Service (NWS) determines the heat impact in the forecast. The Maryland Emergency Management Agency (MEMA) monitors data from the Sterling, Pittsburgh, Mt. Holly and Wakefield NWS stations.

State Actions

- Conduct an annual review of the State Heat Plan and revise and update as necessary.
    - Coordinate and conduct a conference call with State Partners to review and update planning efforts.
    - Obtain updated list of cooling centers where applicable.
    - Revise State public information materials as necessary.
    - Update cooling center list with addresses and contact information.
- Provide guidance and recommend best practices to aid jurisdictions in revising local Heat Emergency Plans as requested.
- Update the DHMH website and social media outlets to include accurate local cooling center lists and contact information.
- Distribute revised Heat Emergency Plan to Local Health Departments and partners by the third week of May.

Suggested Local Actions

- Consider conducting an annual review of the jurisdiction's plan:
    - Revise and update local surveillance and communications plans. Prepare generic press releases and local website pages.
    - Review and revise as needed information pertaining to vulnerable populations.
    - Review and revise any existing cooling center plans.

    - Review and revise available transportation programs for providing transportation assistance to cooling centers, if applicable
    - Train personnel on job duties and evaluation tools for heat-related interventions.
- Provide DHMH with information on cooling centers and other resources
- Identify and renew expectations of local Extreme Heat Partners regarding actions during an Extreme Heat Event.

Public Information

- Revise written and electronic public information materials. Messaging should also be clear and targeted to High-Risk Populations and contain a list of available options, such as call-in numbers for the location of cooling centers.
- Jurisdictions should consider establishing communications partnerships and distribute basic information in advance to pharmacists, primary care physicians, specialists, mail carriers, police, EMS and firefighters.

Phase 2: Launch of Extreme Heat Season

DHMH should be prepared to launch Extreme Heat Event activities by June 1st. The Launch of the Extreme Heat Season is for the purposes of the initial public messaging to the public on heat-related illness.

Triggers

- DHMH and Jurisdictions should consider holding press conferences on or just prior to the day of the first Extreme Heat Event, or;
- DHMH and Jurisdictions should hold a press conference by the third week in June if no Extreme Heat Events have occurred.

Surveillance

- DHMH will begin to circulate a weekly report on monitoring heat emergencies starting June 1st. This report will include:
    - Temperature Data
        - MEMA monitors the National Weather Service for this data
    - Number of Deaths
        - Office of the Chief Medical Examiner (OCME) reports heat-related deaths.
    - Emergency Responses
        - Maryland Institute for Emergency Medical Services Systems (MIEMSS) Statewide Electronic EMS Data System will be functional by the end of 2011 and reports on trends in heat-related illnesses treated by EMS.
    - Emergency Department visits for Heat-Related Illness

        - DHMH's hospital emergency department syndromic surveillance system, ESSENCE, monitors various heat-related chief complaints, dehydration, heat exhaustion, heat stroke and hyperthermia.
    - Number of Heat Alerts
    - Heat Alert Reference Information
- Jurisdictions should consider designating an agency to monitor weather forecasts for temperature and humidity. A single reliable forecasting source that can provide accurate data one to five days in advance should be selected.

State Actions

- DHMH and Jurisdictions should consider holding press conferences on or just prior to the day of the first Extreme Heat Event or by the third week in June if no Extreme Heat Events have occurred.
- Coordinate with partner organizations to provide information on activities and programs via the media.
- DHMH and Jurisdictions should make revised public education materials available to outside organizations, the media and the general public.
    - Public Education Materials include the locations of Cooling Centers, a standard Heat Emergency Brochure, a Heat-Related Illness Fact Sheet for Physicians and Pharmacists and Heat Emergency Recommendations for Schools
    - Contact nursing homes to promote summer preparedness, reminding them to check their generators and air conditioning systems.
    - Update website with LHD and cooling center phone numbers and information.

Suggested Local Actions

- Jurisdictions should consider using their EMS systems to track the number of heat-related illness emergency calls.
- Consider designating an agency or office to monitor weather forecasts for temperature and humidity. A single reliable forecasting source that can provide accurate data one to five days in advance should be selected.
- Develop a target group who are high risk for EHE and develop information (where to get more information, symptoms, tips for preventing and recommendation for seeking care if symptoms appear, etc)
- Jurisdictions should consider developing criteria for a list of individuals vulnerable to heat related health issues. Consider establishing a local list that can be used in mobilizing community leaders to check on vulnerable individuals in Phase 4.
- Begin pushing Pet Preparedness. Resources can be found at Ready.gov[2].
- Establish a team for responding to EHE – It may include LHD, Local Emergency Management, Red Cross, etc).

[2] http://www.ready.gov/america/getakit/pets.html

Phase 3: Extreme Heat Events

Triggers

- Weather conditions meet the criteria for an Extreme Heat Event.

State Actions

- Notification
    - DHMH will issue a daily Heat Alert, preferably by 6:00 am for the state or jurisdiction expected to be impacted by an Extreme Heat Event.
        - Alert will be sent to local health officers, emergency managers, etc.
    - The DHMH alert will also be sent daily to state agencies including:
        - Maryland Emergency Management Agency (MEMA)
        - Maryland State Department of Education (MSDE)
        - Maryland Department of Transportation (MDOT)
        - Maryland Department of Juvenile Services (DJS)
        - Maryland Department of Human Resources (DHR)
        - The Maryland Hospital Administration (MHA)
        - Maryland Department of Disabilities (MDOD)
        - Maryland Institute for Emergency Medical Services Systems (MIEMSS)
- DHMH will continue to monitor syndromic surveillance systems and issue the weekly report outlined in Phase 2 (use Attachment F as a template).
- DHMH will coordinate with MEMA to attempt to alleviate the impact of power outages on high risk populations, such as nursing homes.
- DHMH will coordinate with MIEMSS to issue FRED alerts when appropriate

Suggested Local Actions

- Monitor surveillance of problems and gauge the potential impact of the anticipated event.
- Notify local Extreme Heat Event Partners.
- Provide DHMH with updated information on local cooling centers.
- Jurisdictions should consider activating their cooling center plans. See Attachment A for information on locations and hours of operation.
- Jurisdictions should consider activating transportation assistance programs.
- Consider suspending water utility shut-offs for occupied buildings.
- Consider recommending canceling, rescheduling or heightened mitigation protections for outdoor public events.
- Consider extending the hours of operation at community centers with air conditioning.
- Jurisdictions should consider arranging for extra staffing and emergency support services.
- Coordinate with relevant organizations to provide water to homeless populations and at designated locations (such as cooling centers).
- Consider coordinating responses with public access numbers.

- Jurisdictions should consider recommending the cancellation of large outdoor gatherings or provide information on mitigating the threat (such as fans, moving to air conditioning and supplying bottled water).
- Recommend including heat advisory warnings with all summer event permits.
- Recommend employers of outdoor workers schedule shifts to the morning and evening, avoiding peak heat hours.
- Jurisdictions should provide all call centers (911, 211, hospital and private 'Ask a Nurse' lines) information on cooling centers and transportation options.
- Recommend employing consistent messaging that urges individuals to check on elderly neighbors and family members.
    - If possible, recommend the usage of reverse-911 systems by local jurisdictions to contact at-risk and vulnerable populations and provide heat advisory warnings.

Public Information

- DHMH will coordinate with each jurisdiction on Extreme Heat Event communications.
    - DHMH will support jurisdictions that wish to take the lead on communications activities.
    - DHMH will send its heat advisory to local media outlets by 6 am each day for jurisdictions that do not wish to take the lead on communications.
- Jurisdictions taking the lead on communication should notify local press by 6 am each day.
- Both the State and jurisdictions should update social media and departmental websites to reflect heat advisory and provide health warnings and recommendations.
- Coordinate public health broadcasts of information about the anticipated timing of the event.
    - Include information about the severity and duration of EHE conditions and recommendations to go to seek a cool place or a designated cooling center and to increase fluids.
- DHMH will make available for distribution targeted public information/education materials for:
    - Physicians,
    - Pharmacists,
    - Federally Qualified Health Centers (FQHCs),
    - Community Groups,
    - Religious Organizations,
    - Supermarkets.

Phase 4: Complex Heat Emergency

A Complex Emergency is a condition of an Extreme Heat Event with complications requiring additional response. Examples of such complications are water or power shortages or an extended heat wave. Complex Heat Emergencies may be local, regional or statewide

Triggers

- State and local authorities will use discretion in deciding that conditions constitute a complex emergency, which may include:
    - Significant power or water outages, or;
    - Extended heat waves, or;
    - Excessively high temperatures, or;
    - Any other factors that would exacerbate a Heat Emergency.

State Actions

- MEMA will lead activities in this scenario.
- Coordinate with MEMA to activate multi-jurisdictional response.
    - DHMH will consider extraordinary steps in managing the emergency.
- Consider activating emergency plans to scale response.
- Consider coordinating with local jurisdictions to supplement response.

Suggested Local Actions

- Consider opening additional cooling centers. Locations are noted in Attachment A.
- Consider contracting for misting tents, or have local Department of Parks and Recreation set up sprinklers in consultation with local Department of Public Works.
- Consider providing ice and/or dry ice to areas without power.
- Consider distributing fans to vulnerable populations without air conditioning, if resources are available.
- Consider mobilizing neighborhood leaders to check on and assist vulnerable individuals in targeted locations.
- Consider coordinating with Emergency Management to activate CERT teams to check on neighbors and/or pass out supplies.
- Consider actively seeking out the homeless population and ensure they have a cool place to stay.
- Consider opening a temporary emergency center for areas that may be without water or power for an extended period of time.
- Consider coordinating with local emergency management officials and power companies to minimize impact on nursing facilities and assisted living providers.

Water Shortages

- In the event of a widespread and/or prolonged water shortage, the Jurisdiction's Health Department and the Department of Public Works should consider providing alternative potable water to affected residents. Resources can also be requested through local EMA.
- Consider requesting assistance from the private sector in providing and distributing free water.

Phase 5: Post Summer

The post summer activities typically begin in mid-September and include After Action Reporting and planning for the next operational period.

Triggers

- Post-summer activities begin in September.

State Actions

- DHMH ceases circulating weekly heat reports in September.
- Where applicable, collect After Action Reports from the jurisdictions and determine best practices to be included in the following year's planning efforts.
- Collect, analyze and release statewide surveillance data from the summer for use in future heat planning.
- Review and update State Heat Plan, including a comprehensive review of local plans and resources, to be completed and posted by May 1.

Suggested Local Actions

- Cease heat-event monitoring and return cooling centers to normal hours if applicable.
- Coordinate with DHMH on an annual heat plan review.
- Identify organizations serving high-risk populations that can be utilized in following season.
- Develop or revise information on high-risk individuals.
- Create voluntary registries for individuals, families and neighbors.
- Develop or revise an accessible record on facilities and locations.
- Conduct an evaluation of interventions:
    - Review evaluation tools to monitor effectiveness
        - Cooling center usage
        - Transportation program usage, if available
        - Hotline Reports
        - Collaborator Reports